Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_\_\_\_\_\_\_

Stoichiometry: Volume-Volume Problems

1. N2 + 3H2 → 2NH3

What volume of hydrogen is necessary to react with five liters of nitrogen to produce ammonia? (Assume constant temperature and pressure.)

1. What volume of ammonia is produced in the reaction in Problem 1?
2. C3H8 + 5O2 →3CO2 + 4H2O

lf 20 liters of oxygen are consumed in the above reaction, how many liters of carbon dioxide are produced?

1. 2H2O → 2H2 + O2

lf 30 mL of hydrogen are produced in the above reaction, how many milliliters of oxygen ore produced?

1. 2CO +O2 →2CO2

How many liters of carbon dioxide are produced if 75 liters of carbon monoxide are burned in oxygen? How many liters of oxygen are necessary?